

ABSTRACT

A device for target scoring includes an elongated retro-reflective member, a first light source, a second light source, a first light sensor, a second light sensor and 5 a processor. The first light source is disposed at a first location and is spaced apart from the retro-reflective member. The first light source is also positioned so as to be able to direct a first beam of light toward the retro-reflective member. The second light source is disposed at a second location spaced apart from both the retro-reflective member and from the first light source. The second light source is also 10 positioned so as to be able to direct a second beam of light toward the retro-reflective member so that the second beam of light intersects the first beam of light over an area so as to define a target area. The first light sensor is disposed adjacent the first light source and is positioned so as to be able to receive light from the first light source that has been reflected from the retro-reflective member. The first light 15 sensor generates a first signal indicative of a first position of a first blockage of illumination from the retro-reflective member. The second light sensor is disposed adjacent the second light source and is positioned so as to be able to receive light from the second light source that has been reflected from the retro-reflective member. The second light sensor generates a second signal indicative of a second 20 position of a second blockage of illumination from the retro-reflective member. The processor is responsive the first signal and to the second signal. The processor is programmed to determine a location of the object in the target area, based on the first position of the first blockage of illumination and the second position of the second blockage of illumination.